Financing Developments in the Irish Economy

Overview

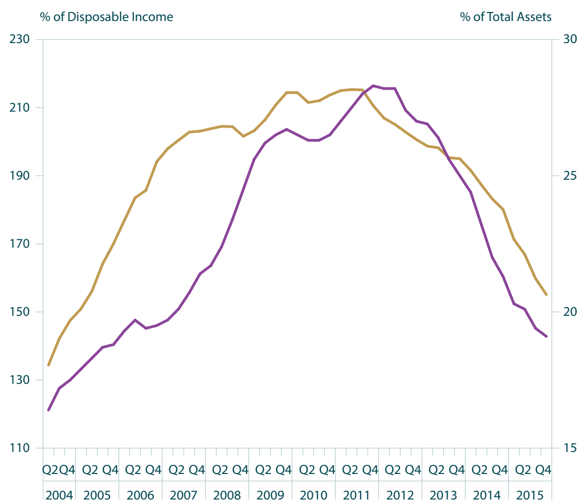
Financing conditions in the Irish economy have continued to improve since publication of the last *Quarterly Bulletin*. Economic growth, alongside an accommodative monetary policy stance at the European Central Bank, has resulted in a strengthened funding position for financial and non-financial firms. Deposits with Irish resident credit institutions grew marginally during the first five months of 2016, with strong inflows recorded for the non-financial corporation sector. Irish households continued to be net funders of the Irish banking system at end-May with deposits outstripping loans by some €6.4 billion. Moreover, Irish resident credit institutions' reliance on borrowing from the eurosystem fell to €8.3 billion in May 2016, down from €13 billion in May 2015.

The cost of borrowing for households and NFCs has fallen over recent months, though it remains the highest in Europe. In particular, there was a fall in the rate of interest on new loans to small and medium-sized enterprises (SMEs). Despite this, the Irish private sector continues to deleverage. Credit extended to both households and NFCs declined by 10 per cent year-on-year in Q1 2016. For households, repayments have exceeded new lending in each month so far this year while NFC repayments also exceeded new lending by €1.9 billion in May 2016. These developments suggest that GDP growth in the Irish economy over the past number of quarters has occurred in the absence of credit growth. A heat map outlining long-run trends in domestic credit and deposits is presented in Box B. This shows growth in deposits above long-run averages, and a slowdown in the pace of deleveraging.

The cost of borrowing for Government remains below historic averages despite increased uncertainty in the wake of the outcome of the UK's referendum on EU membership which, among other factors, has driven increased volatility in financial markets. These developments, alongside the performance of wider economic indicators have resulted in a continued decline in Irish sovereign bond yields since the last *Bulletin*.

The level of mortgage arrears, though improving, remains elevated. In particular, the number of accounts in arrears for more than 720 days remains a cause for concern.

Chart 1: Household Debt Sustainability

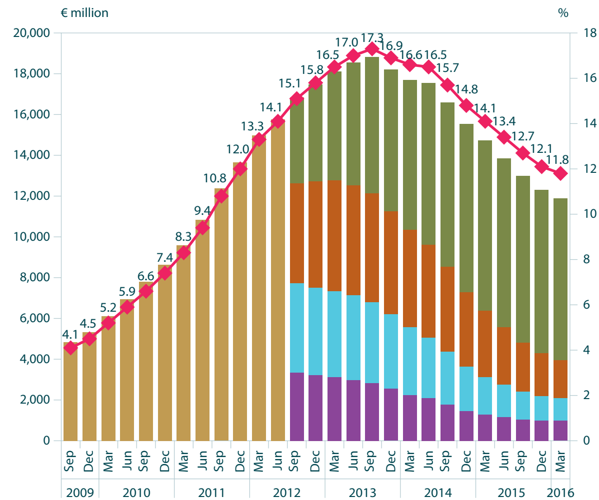


— Debt to Disposable Income (LHS)

— Debt to Total Assets (RHS)

Sources: Quarterly Financial Accounts, Central Bank of Ireland; Quarterly National Accounts, CSO.

Chart 2: PDH Accounts in Arrears over 90 Days



■ Outstanding balance on accounts in arrears >90 days

■ Outstanding balance on accounts in arrears 91-180 days

■ Outstanding balance on accounts in arrears 181-360 days

■ Outstanding balance on accounts in arrears 361- 720 days

■ Outstanding balance on accounts in arrears >720 days

Value of accounts in arrears >90 days as a % of total (RHS)

Source: Residential Mortgage Arrears and Repossessions Statistics, Central Bank of Ireland.

Household Sector

Continuing growth in the Irish economy has been accompanied by improvements in the balance sheet of households as evidenced by data available since the latest *Quarterly Financial Accounts*[1]. Q4 2015 saw a further reduction in the stock of household debt, which declined by 1.1 per cent, to €149.6 billion or €32,269 per capita. As a result, household debt is now at its lowest level since the first quarter of 2006. The decline over the quarter reflected net debt repayments of €1.1 billion and debt write-downs/write-offs of €600 million, which were slightly offset by statistical reclassifications of €100 million. Household debt has now declined continuously for the last 29 quarters and fallen by 26.6 per cent since its peak of €203.7 billion in the third quarter of 2008.

A rise in the value of housing assets drove a 1.4 per cent increase in household net worth[2] to €626 billion or €135,078 per capita in the fourth quarter of 2015. This increase also reflected a €1.6 billion decline in household liabilities. Compared with a post-crisis low of €444 billion in Q2 2012, household net worth has risen by 41 per cent, but still remains 12.8 per cent lower than its pre-crisis peak of €718 billion in Q2 2007.

Indicators of household debt sustainability also improved, with debt as a proportion of disposable income standing at 155.1 per cent at the end of Q4 2015, down from 159.8 per cent in the previous quarter (Chart 1). In annual terms, debt as a proportion of disposable income fell by 25.1 percentage points over the year to 155.1 per cent. In spite of this however, Irish households remain the third most indebted in the European Union.

Household investment in financial assets increased further during Q4 2015 to €1.9 billion. This represented the highest level of investment in financial assets by households since Q3 2009. Chart 1 shows that household debt as a percentage of total assets now stands at 19.1 per cent, a fall of 0.4

1 See the Quarterly Financial Accounts for further details.

2 Household net worth reflects the sum of housing and financial assets minus financial liabilities.

percentage points compared with the previous quarter. The increase in financial assets over the quarter largely reflected transactions into deposits which have increased each quarter since Q1 2014. Households' financial investments continued to be primarily in the form of insurance technical reserves at end-2015.

The improvements in household balance sheets have been slow to translate into an upturn in the stock of loans to households. Loans to households (adjusted for loan sales and securitisations) by Irish resident credit institutions declined by 3.4 per cent in May 2016 compared with the same period in the previous year. Outstanding mortgage loans, which account for 83 per cent of on-balance sheet household loans, declined by 2.2 per cent year-on-year in May. Quarterly data shows that the declines in the stock of mortgage lending outstanding are more pronounced in the Buy-to-Let sector, which saw an annualised decline of 9.4 per cent in Q1 2016.[3] One area of growth is within loans for consumption purposes, which grew by 0.5 per cent year-on-year in May 2016, the largest annual increase since 2009. This increase was driven by lending for more than one year and up to five years, which is typically directed at medium-sized purchases such as vehicles and holidays. If this trend persists, it may suggest that the growth in consumption seen in indicators such as retail sales and new vehicle purchases may be beginning to filter through to lending data.

The number of mortgage accounts for principal dwelling houses (PDH) in arrears continued to fall in the first quarter of 2016, marking the 11th consecutive quarter of decline. Eleven per cent of mortgages were in arrears at end-Q1. Eight per cent of PDH mortgages were in arrears of more than 90 days, representing some 11,896 accounts, 66 per cent of which were in arrears more than 720 days (Chart 2). The level of long-term arrears, while falling, continues to be a cause for concern. An increasing number of mortgages in long-term arrears are now held by non-bank entities – the split between bank and non-bank entities is further explored in Box A.

The latest data available on interest rates showed that the cost of borrowing for households has continued to fall. At the end of May 2016, the interest rate on new floating rate mortgage loans was 3.12 per cent, a decline of 0.10 percentage points compared with the same period in the previous year. This rate is, however, 128 basis points higher than equivalent euro area rates.

Box A: Mortgage Arrears and the Role of Non-Bank Entities

By Jean Cassidy and Eoin O'Brien[4]

Mortgage arrears has been a prominent policy issue in Ireland for the past five years. At an aggregate level, arrears have been declining since mid-2013, reflecting the concerted resolution efforts of mortgage lenders and the Central Bank, as well as the recovery in the economy and the labour market. Banking sector deleveraging in recent years has also resulted in the disposal of mortgage assets, and it is now the case that a small, but not insignificant, number of mortgage accounts are held by non-bank entities. This Box explores the split of mortgage accounts between banks and non-banks, and highlights the disproportionately large share of arrears cases among the non-bank entities.

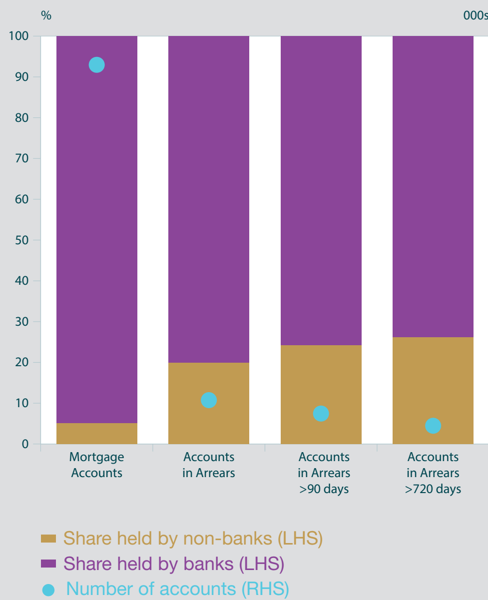
4 Statistics Division and Financial Stability Division, respectively.

3 A full breakdown of mortgage lending data is available in the Trends in Personal Credit release.

Box A: Mortgage Arrears and the Role of Non-Bank Entities

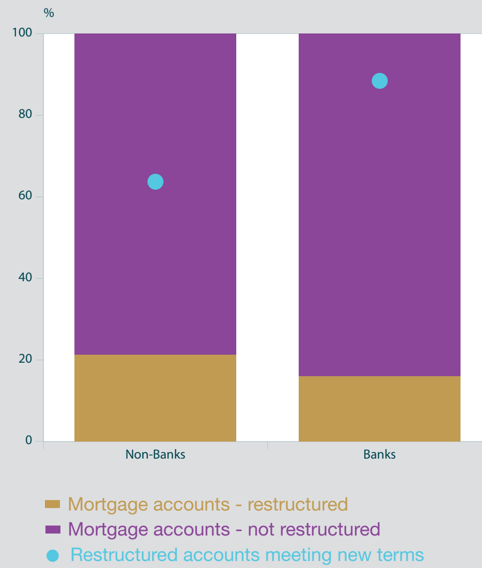
By Jean Cassidy and Eoin O'Brien

Box A Chart 1: Mortgage Arrears: Banks and Non-Banks



Source: Residential Mortgage Arrears and Repossession Statistics, Central Bank of Ireland.

Box A Chart 2: Restructured Mortgage Accounts



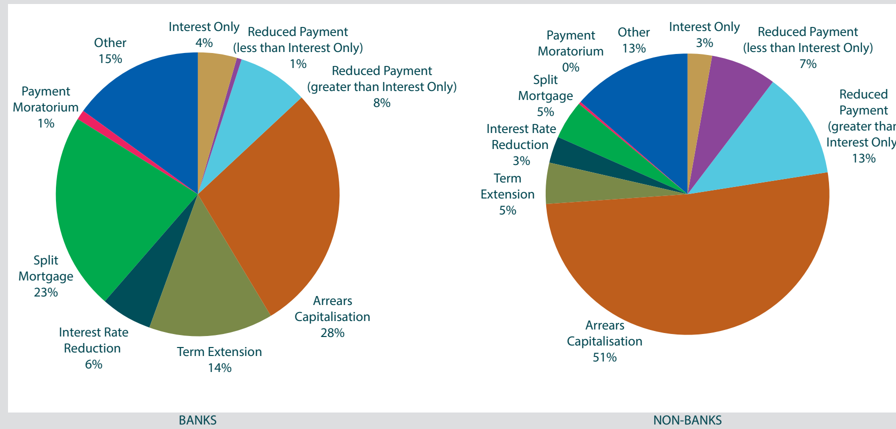
Source: Residential Mortgage Arrears and Repossession Statistics, Central Bank of Ireland

The data reported by non-bank entities as part of the Central Bank *Residential Mortgage Arrears and Repossession Statistics* include mortgage loans issued by a number of authorised retail credit firms. They also include mortgage loans issued by banks and subsequently sold to other entities, some of which are not currently regulated entities. According to the most recent statistics, unregulated entities accounted for just under 30 per cent of mortgage loans on principal dwelling houses (PDH) held by non-bank entities at end-March 2016. Their share of the overall PDH mortgage market was 1.5 per cent at that time.

Box A Chart 1 shows the breakdown of the number of mortgage accounts and mortgage arrears cases between banks and non-bank entities at end-March 2016. The first column shows that of the 743,700 outstanding PDH mortgage accounts, approximately 5 per cent are held by non-banks. Turning to arrears cases, of which there are 85,989 in total, about 20 per cent are now held by non-bank entities. This represents a much larger share than the proportion of mortgage accounts they hold, pointing to a significantly worse performance status of loans held by non-bank entities. Columns three and four of Box A Chart 1 show the breakdown of accounts in arrears of more than 90 days and more than 720 days, respectively. It is evident that an increasing share of these longer-term arrears cases is held by non-bank entities. In fact, over a quarter of very long-term arrears (i.e. more than 720 days) cases are held by non-banks.

Box A: Mortgage Arrears and the Role of Non-Bank Entities
By Jean Cassidy and Eoin O'Brien

Box A Chart 3: Restructured PDH Accounts by Restructure Type and Entity Type



Source: Residential Mortgage Arrears and Repossession Statistics, Central Bank of Ireland.

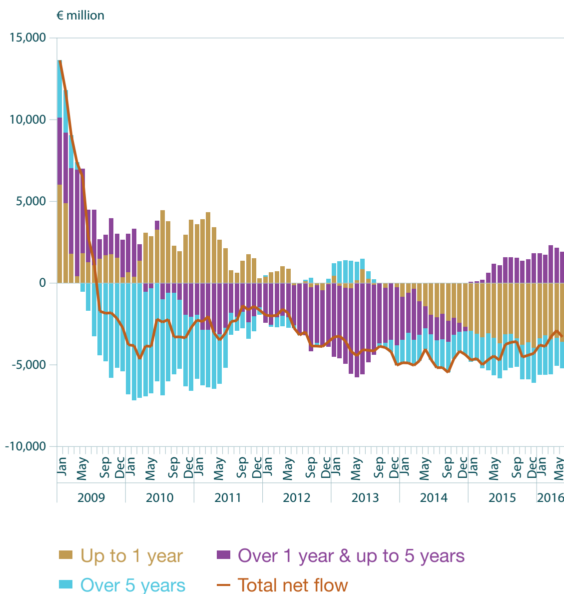
Turning to the management of arrears cases, overall about 1 in 6 mortgage accounts has received some form of restructuring arrangement. The majority (circa 85 per cent) of these restructured accounts are meeting the terms of their new arrangement[5]. Box A Chart 2 looks at restructured accounts by type of entity. A mortgage account held by a non-bank entity is somewhat more likely to have been restructured than an account held by a bank – about 1 in 5 accounts as opposed to 1 in 6 accounts. A more significant difference is evident in terms of the performance of these restructured accounts. In the case of accounts held by banks, 88 per cent of restructured accounts are meeting the terms of the new arrangement. On the other hand, just 65 per cent of restructured accounts held by non-banks are meeting the new terms of the arrangement. Once again, this seems to suggest that accounts held by non-bank entities are those with a poorer repayment performance.

This poorer performance also reflects the type of restructuring activity undertaken by these entities. Restructure arrangements involving arrears capitalisation account for just over half of all restructured mortgage loans held by non-bank entities (Box A Chart 3). Just over one quarter of restructured accounts held by banks are in the arrears capitalisation category. The most recent aggregate statistics show that re-default rates are particularly high among this restructure type. At end-March 2016, only 77 per cent of accounts in the arrears capitalisation category were meeting the terms of their arrangement. This implies that 23 per cent had re-defaulted, i.e. the arrears balance had increased since the arrangement was put in place. Re-default rates are also high among reduced payment arrangements where the borrower is paying less than interest only. The lowest rates of re-default are among split mortgage restructures – a growing category among bank entities.

Despite any associated realisation of losses, the disposal of distressed mortgage loans is largely a positive development from the perspective of the Irish banks' balance sheets. To the extent that these loans have, for the most part, been transferred to foreign-owned entities not engaging in banking activities, the loans themselves are no longer an impediment to the issuance of new credit to the economy. From a consumer protection perspective, it is imperative that the resolution efforts undertaken by non-bank entities are monitored, to ensure that all borrowers receive fair and appropriate treatment, irrespective of where their mortgage loans are now held. Furthermore, these unresolved and deteriorating mortgage loans still signify a considerable debt overhang for the household sector. This continues to be a cause for concern, given the wider economic implications and the potential impact on aggregate household consumption and investment.

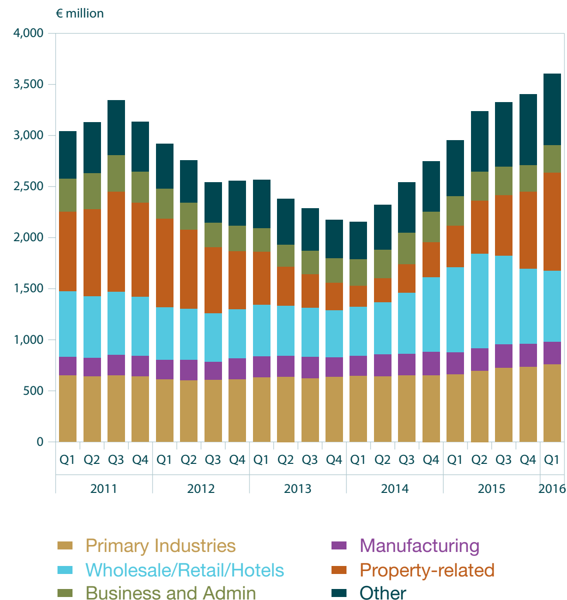
5 This means that the borrower is, at a minimum, meeting the agreed monthly repayments according to the terms of the restructure arrangement.

Chart 3: Loans to NFCs – Net Flows by Category of Original Maturity



Source: Money and Banking Statistics, Central Bank of Ireland.

Chart 4: Gross New Lending to SMEs by Sector (12 Month Moving Average)



Source: Business Credit and Deposits Statistics, Central Bank of Ireland.

Non-Financial Corporation Sector

After a contraction in the previous quarter, the upturn in global stock markets at the end of 2015 drove a return to growth in non-financial corporations' (NFC) balance sheets in Q4 2015, with financial assets increasing by 14.4 per cent and liabilities increasing by 12.4 per cent. The expansion in both assets and liabilities were driven by positive movements in the valuation of equities as well as corporate restructures.

The ratio of NFC debt-to-GDP declined in Q4 2015 by 2 percentage points to 157.2 per cent. The rise in NFC debt of €24.3 billion was more than offset by the increase in annualised GDP of €18.4 billion. Developments in NFC debt were primarily driven by increases in loans held by domestic other financial intermediaries (OFIs) of €21.8 billion while there was also an increase in loans held by non-residents of €6.7 billion. It is important to note that data for Ireland are heavily impacted by the large presence of multinational corporations. These firms have little interaction with the domestic financial system, but have a significant effect on the level of NFC debt in Ireland. NFC loans held by domestic monetary financial institutions remained in decline, reflecting in part ongoing deleveraging by indigenous Irish firms particularly in the SME sector.

Lending by Irish resident credit institutions to NFCs declined on an annual basis in May 2016, falling by 6.8 per cent. There have been divergent trends in the different maturity categories however, with declines in both short (up to one year) and long (over five years) maturity loans (Chart 3). By contrast, medium-term (over one and up to five years) loans grew by 15.8 per cent year-on-year in May. This may indicate, as noted in previous *Bulletins* a reduced reliance on non-bank funding.[6] Quarterly data on trends in business credit show that gross new lending to SMEs has continued to grow since early 2015, with €962 million drawn down in the 12 months to the end of Q1-2016. The recent increase in

6 Coates, D and A. Moloney (2016) 'Box A: Real Estate Investment Trusts and the Property Sector in Ireland', Central Bank of Ireland Quarterly Bulletin No.2

new lending has been driven by the primary industries and transportation sectors (Chart 4).

The cost of borrowing has remained broadly unchanged for Irish NFCs over recent months. The average cost of new NFC loans was 2.68 per cent in May 2016, an increase of 77 basis points compared with 12 months previously, and some 96 basis points higher than the equivalent euro area rate. By contrast, the average cost of borrowing for non-financial SMEs has declined to 4.44 per cent in the first quarter of 2016, compared with 4.71 per cent in the same period last year. It is noteworthy, however, that this rate is higher than that applying to the outstanding stock of SME loans which average 3.06 per cent at end-Q1.

Box B: A Heat Map for Irish Private Sector Credit and Deposits
By Martina Sherman and Stephen Byrne[7]

The monthly and quarterly releases of Credit, Money and Banking Statistics by the Central Bank of Ireland provide detailed data on the liabilities and assets of Irish resident credit institutions, broken down by counterparty residency and institutional sector as well as by the type and maturity of the main asset and liability instruments.

One of the primary challenges for compilers of large datasets such as these is to present them in a manner that is easily understood by users. Data visualisation plays a key role in this regard. One visualisation method which has been utilised for financial data is a heat map, which facilitates the presentation of a large volume of data in matrix form with each tile shaded on a colour scale to represent the value of the corresponding element of the data matrix.[8] In this Box we utilise the heat map to portray developments in bank credit and deposits vis-à-vis Irish households and non-financial corporations (NFCs).

In building the heat map,[9] it is important to have consistent rules for determining the shading for each observation. Some approaches use economic theory or judgement or a mixture of both. However, in this case, the heat map shows whether the growth in credit being advanced to households and NFCs is high or low by historical standards.

To do this, we use the longest available time-series for each variable and standardise the year-on-year growth rate for each month. The resulting series has a mean of zero and standard deviation of one. Using this standardised series, we assign colours to each observation depending on whether it is above the mean (>0) or below (<0). Numbers above (below) the mean receive a positive (negative) score of 1 if the observation is one standard deviation below the mean. As each new observation is added the mean and standard deviation are recalculated using the updated series.

Where relative growth rates are above the long-run mean, the series are colour-coded red while those below the long-run mean are colour-coded blue. Additionally, a darker shade corresponds to the value lying further from the long-run average of the individual series.

7 Statistics Division, Central Bank of Ireland.
8 See Byrne and Smyth (2016), for recent work on building an Irish macroeconomic heat map.
9 For a detailed description see Wilkinson & Friendly (2009).

Box B: A Heat Map for Irish Private Sector Credit and Deposits
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Box B Chart 1: Household and NFC Credit and Deposits Heat Map

Source: Table A.1 Money and Banking Statistics, Central Bank of Ireland.

Note: ICPFs are insurance corporations and pension funds. OFIs are other financial intermediaries.

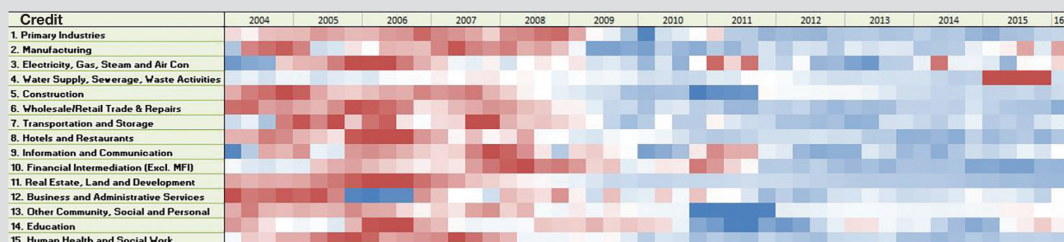
It is important to note that the heat map series are not calculated relative to each other, rather each value is relative to the long-run average of its own series. The darker red shade in the consumer credit series in 2006 is the result of these observations being above the long-run average growth rate for consumer credit.

The build-up of credit, as occurred in the Irish economy in the mid-2000s is considered an early warning indicator of imminent crises. The European Systemic Risk Board (ESRB) recommendations include the monitoring of credit growth, in addition to its main indicators, in identifying systemic risk build-up.[10] Looking at Box B Chart 1, the growth in credit pre-2008 is clearly excessive compared to the average for the time period covered. Mortgage lending was at the highest above-average rate in 2004 and 2006, and remained at above average rates until a marked turning point in 2008. Similarly, consumer credit built up considerably until the end of 2006.

All lending series have been blue for the past several years, showing growth rates below long-run averages. This is indicative of on-going deleveraging, particularly by NFCs. It is only in the past few months that we see a shift emerging in consumer lending in the heat map, reflective of improving trends in medium-term loans to consumers, albeit monthly growth rates are still below long-run averages.

The severity of the decline in lending to NFCs, particularly since 2013, is quite evident in the deep blue shading. We can use supplementary quarterly statistics to further investigate trends within sub-sectors of NFC lending. The heat map in Box B Chart 2 indicates that the contraction in NFC lending is quite broad-based, although variations do exist between economic sectors. Immediately notable is the widespread deep red blocks between 2004 and early 2008. Lending for real estate purposes was well above its long-run average in 2006, coinciding with the heat map for the mortgage lending series in Box B Chart 1, above.

Box B Chart 2: Heat Map of Credit to Businesses, by NACE Sector



Source: Table A.14 Trends in Business Statistics, Central Bank of Ireland.

Note: Quarterly data on credit to businesses is slightly wider in coverage than the definition of NFC lending, as it includes some non-incorporated enterprises, sole-traders, and partnerships, which belong to the household institutional sector in the monthly data. Additionally, debt securities are included in the quarterly business statistics.

10 See a recent Central Bank Economic Letter (2016) on the countercyclical capital buffer.

Box B: A Heat Map for Irish Private Sector Credit and Deposits
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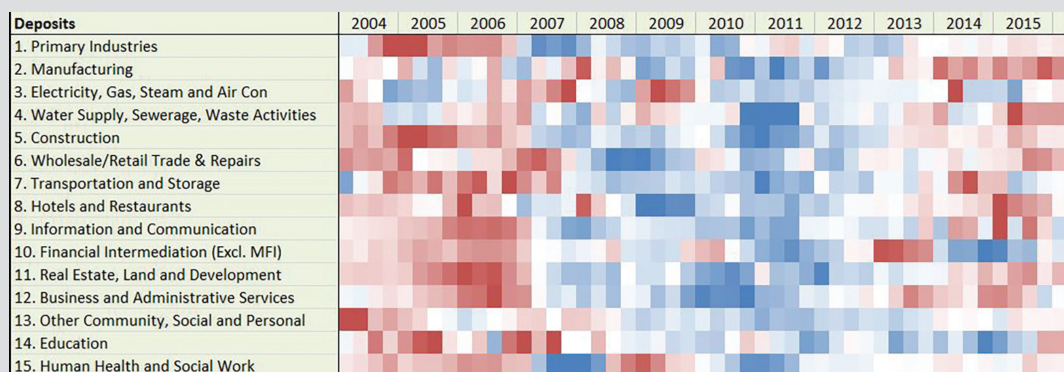
In more recent quarters, the deep red for the water supply sector stands out, reflecting a large transaction in early 2015 that was well above the long-run average for the series. Also evident is the upturn in credit for manufacturing, reflective of consistently positive net lending during the past few quarters. This is, however, driven by large manufacturing business as distinct from SMEs. Many economic sectors are experiencing lower or static growth as indicated by the lighter blue shading, following a period of large net repayments for most. So while the headline NFC series in Box B Chart 1 is indicative of a persistently deep contraction in lending, Box B Chart 2 shows that variations exist across the economic sectors.

Box B Chart 3: Heat Map of Deposits from Businesses, by NACE Sector



Sourtce: Table A.16 Trends in Business Statistics, Central Bank of Ireland.

Finally, a heat map for private sector deposits can inform the user about current deposit market developments and how these contrast with trends for loans. Deposits from households, in Box B Chart 1, have returned to their long-run average growth rate after a high volume of deposit outflows during the crisis. This is in line with other indicators, such as the domestic demand indicators from the Central Bank's macroeconomic heat map which suggests an emerging broad-based recovery.

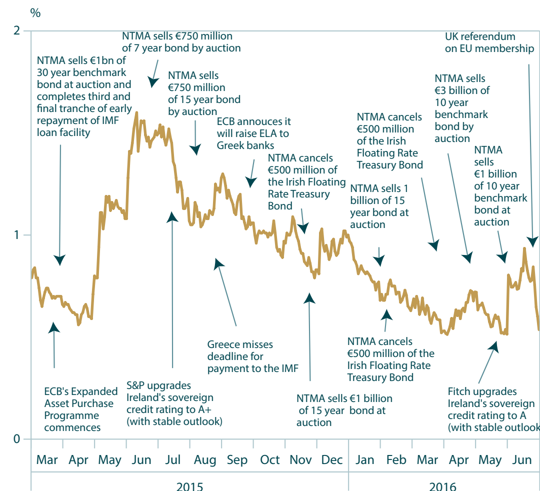
In contrast to trends in lending to NFCs, deposits from corporations appear to have reached a turning point in early 2013 (Box B Chart 1). The quarterly business statistics in Box B Chart 3 shed further light on the underlying developments by economic sector. While most sectors appear to have recovered from the large depletion of deposits during the crisis, manufacturing, business and administration, and hotels and restaurants are driving the current recovery in corporate deposits.

This Box aims to highlight the usefulness of heat maps for visualising Credit, Money and Banking statistics. These facilitate a quick overview of developments in various banking series, without the need to analyse each one individually. Visualisation tools such as this represent a quick and efficient method for disseminating credit developments in an easily understandable format.

Government

Funding conditions for the Irish Government have continued to improve in recent months. Yields on Irish Government 10 year bonds remained below 1 per cent for a fifth consecutive month in May with developments reflecting both domestic and external factors (Chart 5). Non-conventional monetary policy measures undertaken by the European Central Bank have depressed euro area sovereign yields generally, while heightened volatility in equity markets related to, among other factors, the result of the recent referendum on the United Kingdom's membership of the European Union has contributed to further downward pressure on Irish sovereign bond yields.

Chart 5: Irish Government Ten-Year Bond Yields



Source: Thomson Reuters.

Financial Sector

Deposit flows from households and NFCs grew marginally in the first five months of 2016, with inflows of almost €3 billion from the NFC sector. However, these were largely cancelled by outflows from OFIs and from insurance corporations and pension funds. Irish households continued to be net funders of the Irish banking system at end-May 2016. Banks now hold €6.4 billion more household deposits than loans. This contrasts with early 2009, when household loans exceeded deposits by €53.5 billion.

The liability position of resident credit institutions *vis-à-vis* the eurosystem continued to fall since the last *Bulletin*, standing at €8.3 billion at the end of May, compared with €13 billion in May 2015.

The net asset value of investment funds (IFs) resident in Ireland decreased by 2.5 per cent over the first quarter of 2016, to €1,397 billion from €1,432 billion in Q4 2015 with negative revaluations of €46 billion accounting for the bulk of the decline. IFs total assets experienced negative revaluations of 2 per cent during the quarter with equity funds recording the most pronounced fall of 5 per cent. The reversal in equity markets following a strong performance in the last quarter of 2015 particularly impacted equity funds which suffered a €26 billion negative revaluation during Q1 2016.

IFs holdings of government debt stood at €318 billion in Q1 2016, following €17 billion inflows over the quarter. There were continued strong inflows of €13 billion into higher yielding UK government debt, relative to similarly rated other European sovereign debt.

The net asset value of money market funds (MMFs) declined by €40 billion to €434 billion in Q1 2016, driven in the main by currency movements although investor outflows amounted to €9.5 billion. US dollar denominated funds saw the largest investor outflows at €15 billion, while MMFs withdrew €7.9 billion from US securities, the majority of which was government issued debt. MMFs continued a long-run trend of gradual maturity extension, with holdings of money market instruments maturing in 3 to 6 months increasing in contrast to a decline in shorter-term assets.